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Status Report on CODIB Task Team VIII (Photo Chips)

1. General Goal

The Task Team has set out to examine evidence essential to formulating recommendations to CODIB for the most effective and efficient means of utilizing photo chips, as required, in the processing of photographic information (primarily aerial) for all organizations within the purview of USIB. This called for an assessment of the current and prospective value of photo chips, considering requirements, benefits, and disadvantages of standardization of chips in terms of physical size, internal format design, resolution characteristics, etc.

2. The Plan:

A. Task Team Composition: The Chairman (having served on a special committee of the Inter-Service Coordinating and Integrating Group (ISCIG) that had made recommendations for a standard photo chip to serve the tactical needs of the Department of Defense) selected the most knowledgeable representatives to be found in the services, the Unified and Specified Commands, and CODIB to attack the problem in the most direct and effective manner. The selected Task Team members have the proper clearances, "need to know", and the operational experience to examine all aspects of the problem within the intelligence community from both a strategic and tactical viewpoint. Because of the operational applications of any Team findings, the Team has been meeting in regular 3 to 5 day sessions since October 1964.

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B. Approach and Action to Date. The Team is examining pertinent reports and as many of the operational and planned photo chip systems as practical, and has obtained briefing on selected aspects of photo chips and related systems from the most knowledgeable people available. Particular attention is being devoted to prospective technological developments pertaining to chip handling equipment, chip content design, film emulsion chemistry, the physics of film bonds and bases, acquisition film sizes and resolution, and the electronics, optics and mechanics involved in chip creation, handling and interpretation.

Selected chip systems have been examined thus far at: The Defense Document Center, Documentation, Inc.; the National Library of Medicine; the Foreign Technology Division at Wright-Patterson Air Force Base; the Aerospace Charting and Information Center at St. Louis; at the Strategic Air Command, Offutt Field, Omaha; and at the National Photographic Interpretation Center.

~~SECRET~~ The Team has also been carefully briefed on upcoming acquisition systems, on probable developments in film emulsion chemistry, on current equipment for photographic processing, and projected R&D in this field. The Team has developed highly helpful and close working relations with the people in DOD concerned with various aspects of a chip standardization program. The Team is essentially still in the fact-gathering stage, though certain insights are developing as the gathered facts begin to pattern out.

3. Preliminary Findings to Date:

The Team has found that a tremendous number of chip systems are already in existence, and that quite a few more are in various stages of planning and development. Variation in chip forms appear to have resulted from independent

study and development of photo chip files to meet internal requirements. Three basic requirements for chips have been identified which [tend to] differ in varying degrees in terms of size, format, resolution, handling techniques, and application. The three broad data bases are:

- A. Operational (such as the Navy Integrated Operational Intelligence System --IOIS)
- B. Analytical (NPIC stereograms and comparative photo chips; SAC target analysis photo chips; and the FTD Technical Intelligence photo chip file).
- C. Reference (textual and graphic materials such as reports, map chips and microfiche stored in automated or manually maintained repositories).

Certain similarities and differences among the three chip forms or data bases are being further examined; however, the Team's primary concern is for the chip forms contained in data bases noted in A. and B. above. At this point standardization appears to promise the most benefit where chips are to be exchanged or inter-related with other chip forms or data. It appears feasible to accomplish standardization and to provide money savings while generally improving rather than degrading the overall and internal efficiency of chip users.

It has become apparent that the present and projected rate of expansion and change in various technical fields (especially acquisition systems) demands a longer lead-time and study in depth to develop compatible photo chip system as a means of providing the Intelligence Community the maximum benefits of photographic information. The Team feels that the bulk of the needed information and knowledge has been accumulated, and much of this is at hand in the form of informal working notes.